

1 21. A method for executing an operation upon a linked data
2 structure having at least one element, the method comprising the
3 steps of:

4 (a) grouping a first plurality of operation tasks of the
5 operation in a first set of operation tasks, the first
6 set of operation tasks operable to effect a first set
7 of element state transitions;

8 (b) performing the first set of operation tasks in a first
9 phase;

10 (c) grouping a second plurality of operation tasks of the
11 operation in a second set of operation tasks, the
12 second set of operation tasks operable to effect a
13 second set of element state transitions, the second
14 set of element state transitions being distinct from
15 the first set of element state transitions; and

16 (d) performing the second set of operation tasks in a
17 second phase.

1 22. A method for executing an operation upon a linked data
2 structure having at least one element, the method comprising the
3 steps of:

4 (a) creating first and second sets of operation tasks, the
5 first set of operation tasks being characterized by
6 navigation of the linked data structure using at least
7 an existing link, and the second set of operation
8 tasks being distinct from the first set of operation
9 tasks and being characterized by at least a pointer to
10 the linked data structure; and

11 (b) performing the first set of operation tasks in a first
12 phase and the second set of operation tasks in a
13 second phase.

1 23. A method for executing an operation upon a linked data
2 structure having at least one element, the method comprising the
3 steps of:

- 4 (a) dividing the operation into first and second distinct
5 sets of operation tasks;
6 (b) performing the first set of operation tasks in a first
7 phase; and
8 (c) performing the second set of operation tasks in a
9 second phase.

10 24. The method of claim 23 wherein the first set of operation
11 tasks is operable to maintain the linked data structure in an
12 existing linked state.

13 25. The method of claim 24 wherein the second set of operation
14 tasks operable to modify the existing linked state.

15 26. The method of claim 23 wherein the first set of operation
16 tasks is visible only to the operation.